



U.S. Department
of Transportation
**Research and
Special Programs
Administration**

400 Seventh St., S.W.
Washington, D.C. 20590

APR 21 2004

Mr. Thomas Lee Bartlett
Attorney at Law
402 Main at Preston
Suite 3 North
Houston, TX 77002

Ref. No. 03-0304

Dear Mr. Bartlett:

This is in response to your letter requesting clarification concerning requirements under the Hazardous Materials Regulations (HMR), 49 CFR Parts 171-180, applicable to DOT Specification cargo tank motor vehicles. You state that your request concerns an MC-312 cargo tank offloading 32% hydrochloric acid from the top of the cargo tank using pressure above 15 psig. A PVC manual product ball valve located in the discharge piping on top of the cargo tank failed. This cargo tank was manufactured in 1994 with the outlet nozzle blanked off for the customer to install the dip pipe, valve and piping. I am answering your questions in the order as they appear in your letter.

Q1. In 1994, were polyvinyl chloride (PVC) valves authorized on MC-312 cargo tank motor vehicles?

A1. In 1994, a PVC (non-metallic) manually operated ball valve located in the product discharge could be used on an MC 312 cargo tank motor vehicle provided the material was capable of withstanding the pressures specified in the MC 312 specification. The MC 312 specification was last published in The 1990 edition of the HMR, although new cargo tank constructions were authorized to be marked and certified to the MC 312 specification until October 31, 1995 (See current § 180.405(c)(1)). The applicable requirements in the 1990 49 CFR, at § 178.340-8(d)(3), state in part:

Strength of piping, fittings, hose and hose couplings: Hose, piping and fittings for tanks to be unloaded by pressure shall be designed for a bursting pressure of at least 100 p.s.i.g. and not less than four times the pressure to which, in any instance, it may be subjected in service by the action, of any vehicle mounted pump or



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§180.405
§180.407

other device (not including safety relief valves), the action of which may be to subject certain portions of the tank piping and hose to pressures greater than the design pressure of the tank.

Q2. Are MC-412 cargo tank motor vehicles authorized to use PVC valves?

A2. Yes. Section 178.345-9(h) authorizes the use of a non-metallic pipe, valve or connection line that is not as strong and heat resistant as the cargo tank material only when the attachment is located outside of the lading retention system.

Q3. In January 2001, was a PVC valve installed as a replacement on an MC-312 cargo tank motor vehicle authorized?

A3. Yes (see A2).

Q4. In 2002, was a remote closure device required on an MC-312 cargo tank motor vehicle that was unloaded from the top using air pressure?

A4. Yes, see § 180.405(f)(1).

Sincerely,

A handwritten signature in cursive script that reads "Hattie L. Mitchell".

Hattie L. Mitchell
Chief, Regulatory Review and Reinvention
Office of Hazardous Materials Standards

THOMAS LEE BARTLETT
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McIntyre
\$ 180.405
\$ 180.407
Cargo Tanks
03-0304

November 18, 2003

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DOT/RSFA/CHMS
UNIT

Robert A. McGuire
Associate Administrator for Hazardous
Materials
400 7th Street S.W.
Washington, D.C. 20590-0001

Re: Cause No. 2002-46963; Wilson A. Andrade v. L & B Transport,
L.L.C., et al.; In the 190th Judicial District Court of Harris County,
Texas

Dear Mr. McGuire:

This is a request for interpretation. It concerns an MC-312 Cargo Tank offloading 32% hydrochloric acid from the top, using pressure above 15 psig. A PVC manual product ball valve located in the discharge piping on top of the cargo tank failed. This cargo tank was manufactured in 1994 with the outlet nozzle blanked off for the customer to install the dip pipe, valve and piping.

Questions:

1. In 1994, were PVC valves authorized on an MC-312?
2. Are MC-412 cargo tanks authorized to use PVC valves?
3. Is a PVC valve installed as a replacement on an MC-312 cargo tank in January of 2001 authorized?
4. Was a remote closure device required on an MC-312 during 2002, which unloaded from the top using air pressure?

Your timely response would be greatly appreciated.

Sincerely yours,



Thomas Lee Bartlett

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